

REMARKS

Claims 1-32 are pending in the present Application. Of these, claims 9, 11, 21, 23, and 27 have been withdrawn. Claims 1, 2, 3, 28, and 32 have been amended and Claims 33 and 34 have been added, leaving Claims 1-8, 10, 12-20, 22, 24-26, and 28-34 for consideration upon entry of the present Amendment. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Amendments

Support for the amendment to claim 1 can be found in paragraphs [0032], [0034], and [0039].

Support for the amendment to claim 2 can be found in paragraphs [0032] and [0034].

Support for the amendment to claim 3 can be found in paragraph [0030].

Support for the amendment to claim 28 can be found in paragraph [0034].

Support for the amendment to claim 32 can be found in paragraphs [0032], [0034], and [0039].

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-4, 8, 10, 12-20, 22, 24 and 26 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over JP 2000-167827 to Yamamoto, et al. (Yamamoto #1) in view of United States Patent Nos. 5,767,426 to Oliver, et al. (Oliver) and 5,147,722 to Koslow (Koslow) and further in view of United States Patent No. 6,359,043 to Gijzen (Gijzen). Applicants respectfully traverse this rejection.

Yamamoto #1 is the primary reference and teaches a method of making a compressed poly(arylene ether) article. Yamamoto #1 requires that the pressure be applied to the poly(arylene ether) composition in a confined device at a temperature of 70 to 200°C. Oliver and Koslow have been cited for some general teachings with regard to compression molding conditions. Gijzen has been cited for teachings related to the intrinsic viscosity of poly(arylene ether).

Applicants respectfully note that Yamamoto #1 does not teach all the elements of the

pending claims. The amended claims require that the pressure is applied at a temperature of 0 to 65°C. In contrast Yamamoto requires a temperature of 70 to 200°C and states in paragraph [0019] that tablets of adequate strength will not be obtained below 70°C. None of Oliver, Koslow and Gijzen supply this missing element so the combined references do not teach all the elements of the pending claims. Additionally, Applicants note that even if a reference teaching compression molding of poly(arylene ether) at temperatures below 70°C was located it could not reasonably be combined with Yamamoto #1 because Yamamoto #1 teaches away from temperatures below 70°C. Accordingly, Applicants assert that the pending claims are not obvious in view of the combined references.

Claims 5 and 6 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Yamamoto #1 in view of Oliver and Koslow and further in view of Gijzen as applied to claims 1-4, 15-20, 22, 24 and 26, and further in view of Modern Plastics Handbook, edited by Charles A. Harper, Knovel release date: November 20, 2002 (MPH). Applicants respectfully traverse this rejection. The Modern Plastics Handbook has been cited for its teaching with regard to cycle times. Accordingly the Modern Plastics Handbook does not provide the missing element of temperature as discussed above. Applicants respectfully assert that the pending claims are non obvious in view of the combination of Yamamoto #1, Oliver, Koslow, Gijzen and Modern Plastics Handbook.

Claim 7 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Yamamoto in view of Oliver and Koslow and further in view of Gijzen and MPH, as applied to claims 5 and 6, and further in view of United States Patent No. 5,294,667 to Weiss, et al. (Weiss). Applicants respectfully traverse this rejection for the same reasons as presented above with regard to Claims 5 and 6.

Claims 1-4, 8, 10, 12-20, 22, 24-26 and 32 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over JP 2000-302877 to Yamamoto, et al. (Yamamoto #2) in view of Yamamoto #1 and Gijzen. Applicants respectfully traverse this rejection.

Yamamoto #2 teaches a method of making a compression molded body of poly(arylene ether) and then crushing it in order to obtain a particulate poly(arylene ether) having a decreased amount of fine particles. Yamamoto teaches that the molding temperature

can be 5 to 200°C (paragraph 0022) but a marked preference is shown for temperatures of 80 to 165°C. Yamamoto #2 makes no explicit disclosure as to the ranges of pressure that can be used during compression molding except in the examples. The majority of the examples employ temperatures in excess of the upper bound of the amended claims. The exception is Comparative Examples 3 and 4. These comparative examples use a temperature of 3°C and pressures of 0.07 and 0.004 tons/cm² – far below the pressure required by the pending claims. Yamamoto #2 does not teach the combination of temperature and pressure that are required in the pending claims. Yamamoto #1 does teach pressures that are within the claimed range but does not teach temperatures that are within the claimed range. It is tempting to combine the teachings of Yamamoto #1 with regard to pressure with the teachings of Yamamoto #2 with regard to temperature. However, before doing this one must consider the references as a whole in order to assess whether their teachings can reasonably be combined. As mentioned above Yamamoto #1 teaches away from using temperatures below 70°C and hence cannot be combined with Yamamoto #2 for processes employing a temperature below 70°C.

Applicants also note that Yamamoto #1 and Yamamoto #2 are drawn to inventions having two different and divergent purposes and it is doubtful that a person of ordinary skill in the art would combine them. Yamamoto #1 is directed to making a poly(arylene ether) tablet that is easier to handle than poly(arylene ether) powder ([0001], [0005]). Yamamoto #1 clearly indicates that tablet strength is important and carefully considers the compressive strength of the resulting tablets. In contrast, Yamamoto #2, while desiring a poly(arylene ether) tablet that has some strength Yamamoto #2 teaches away from tablets having too much strength – citing issues with incomplete pulverization and the like ([0023]). Yamamoto #2 seems to imply that density is a predictor of compressive strength ([0023]) but in fact Yamamoto #1 shows that density does not necessarily correlate to compressive strength. Example 1 has a density of 0.899 and a compressive strength of 16.5 kg whereas Comparative Example 2 has a nearly identical density of 0.894 but has half the compressive strength (8.65).

Given the above discussion, Applicants respectfully assert that Claims 1-4, 8, 10, 12-20, 22, 24-26 and 32 are non-obvious.

Claims 28 and 30 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Patent No. 3,356,761 to Fox. Applicants respectfully traverse this rejection. Fox discloses curing a composition comprising poly(arylene ether), styrene and a curing agent. The examples of Fox use elevated temperature (in excess of 85°C) and thus cannot render the amended claims obvious due to the fact that Fox does not teach applying pressure at the temperature specified by claims 28 and 30.

Claim 29 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Fox as applied to claim 28 and further in view of United States Publication No. 2002/0198123 to Nitzsche, et al. (Nitzsche). Nitzsche has been cited for allegedly disclosing a method of making a composition comprising heating the binder before blending with the poly(arylene ether) powder. Nitzsche does not remedy the deficiency of Fox described above and hence the combination of Nitzsche and Fox does not teach all the elements of the amended claim.

Claim 31 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Fox as applied to claim 28 and 30 and further in view of Yamamoto #1. Applicants respectfully traverse this rejection. Neither Fox nor Yamamoto #1 disclose applying pressure at a temperature of 0 to 65°C. Since Fox and Yamamoto#1 do not teach all the elements of the amended claim a prima facie case of obviousness cannot be made.

New Claims

Support for new claims 33 and 34 can be found in paragraphs [0010] and [0015].

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Response or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,

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